

# COUNTERMEASURE


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87

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**Head 'em up.  
Roll 'em out.  
Safely!**

**Protect The Force Through Risk Management!**

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# ARMY GROUND RISK-MANAGEMENT PUBLICATION COUNTERMEASURE

The Official Safety Magazine for Army Ground Risk-Management



Head'em Up, Roll'em Out...Safely!

Page 3

Investigators' Forum

Mission: Night movement using  
infrared lights & blackout drive

Hazards  
Reduced visibility  
Speed

Results

- ☐ 1 fatality
- ☐ 10 injuries
- ☐ 100,000 (100,000)

Controls

- ☐ Properly trained personnel
- ☐ Full voice to 100,000
- ☐ 100,000 (100,000)
- ☐ 100,000 (100,000)

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Survival of the Fittest

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**BUCKLE UP!**  
SAFETY BELTS SAVE LIVES.



Saved By The Belt

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## Features

### Accident Briefs

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### Survival of the Fittest

### Poster

BG Gene M. LaCoste

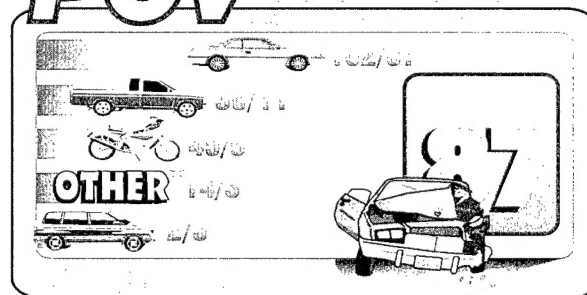
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# POV



U.S. ARMY SAFETY CENTER

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*Gene M. LaCoste*

Gene M. LaCoste  
Brigadier General, U.S. Army  
Commanding Officer

# Head'em Up, Roll'em Out...Safely!

Taken from an old movie, those words reflect the Hollywood image of a bunch of good ol' boys driving big trucks and hauling the goods. Of course, when they have an accident in the movies, it's well planned and staged for maximum effect with minimum real damage and no real injuries. In the Army, accidents are not only unplanned and unstaged, they're costly in both damage and injuries. So, what's it going to take to reduce convoy accidents? Read on!

## Take control and manage risk

The best course to take is to first manage the risks. Risk management gets people thinking about what can go wrong and what they can do about it. "Hmmm...What can go wrong in this leg of the convoy? Let's see...rain's rolling in and I'm under goggles. It's worse out here than I figured. What are my options?"

Anticipate problems! If you anticipate the hazard and it develops, you're ready to deal with it. You can

take a different route; you can put out ground guides; you can stop and wait for hazardous weather conditions to clear; or if driving with night vision devices (NVDs), you can take off your goggles and turn on the lights. But, do something to reduce the risk.

That means before every convoy operation, leaders at all levels should brief drivers, assistant drivers, and senior occupants on the mission, route, type of vehicles they're driving, proper speed, safe following distances, rest periods, signals, and hazardous areas or conditions that might be encountered. They should always pair inexperienced drivers with more experienced assistant drivers or senior occupants. In addition, leaders should ensure that drivers —

- ◆ Have a valid drivers' license.
- ◆ Are trained to drive in adverse conditions, over difficult terrain, in blackout drive, and under NVDs.
- ◆ Know the meaning of traffic-control signs, signals, devices, and markings.



- ◆ Are provided at least 8 consecutive hours of rest for each 10 hours of driving an Army motor vehicle (AMV) within a 24-hour period.
- ◆ Know emergency procedures.
- ◆ Take at least a 15-minute rest break every 2-3 hours or every 100-150 miles, whichever occurs first.
- ◆ Take at least a 1-hour meal break.
- ◆ Can communicate with convoy commander.

#### **Individual responsibilities**

You know, we hold leaders responsible and accountable for everything the unit does or fails to do. But in the end, to be a soldier is to exercise self-discipline. Discipline is doing the right thing without supervision. It is up to drivers to ensure that –

- ◆ They walk to the rear of their vehicle before starting and secure the tailgate and safety strap.
- ◆ All passengers are seated.

## **Risk Management Pointer:**

**L**eaders should ensure that battalion-level driver training programs follow guidelines in AR 600-55. In addition, leaders should also establish an SOP for disseminating safety-of-use messages.

◆ Baggage and other loads are secured and are not in the way of passengers.

◆ No personnel ride outside of wheeled and tracked vehicles.

◆ All occupants use installed restraint systems.

◆ Ground guides are used when backing (guides should never be located between moving vehicle and fixed object).

◆ Proper distances are kept between vehicles (see pages 8-9 for AMV safe following distances. Environmental conditions and vehicle weight will greatly impact following distances.)

◆ They slow down during reduced visibility and adverse weather.

◆ They perform before-, during-, and after-operation preventive maintenance checks and services (PMCS).

In summary, to keep the Army rolling, leaders need to train qualified soldiers to standard and supervise to enforce performance to that standard. Drivers need to maintain the self-discipline it takes to perform to standard.

For further guidance on convoy operations, see AR 385-55, AR 600-55, FM 21-305, and FM 55-30. ◆

POC: MSG Timothy Sprucebank, USASC Senior Wheel Vehicle SME, Ground Systems and Accident Investigation Division, DSN 558-3774 (334-255-3774), [sprucebt@safetycenter.army.mil](mailto:sprucebt@safetycenter.army.mil)

## **What's the Difference?**

**H**ave you ever wondered why leaders use risk management procedures when they "convoy" a large group of vehicles, but not when they "move" a multi-vehicle group? So, what's the difference?

According to FM 55-30, a convoy consists of six or more vehicles. Depending on the unit's SOP, it could be different. Preparing vehicles and soldiers for a movement is the responsibility of all leaders – regardless of the number of vehicles.

Recently, there has been an increase in accidents with multi-vehicle movements

(2-5 vehicles). To ensure the safe execution of the convoy movements, leaders must ensure that convoy commanders are aware of their responsibilities and they use the risk management procedures outlined in FM 100-14. Unit SOPs should address duties and responsibilities of drivers, assistant drivers, and senior occupants during movements of any number of vehicles. ◆

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# Safety Alert: Convoy Operations

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**T**he Army Safety Center has noted 22 convoy accidents since FY 98 caused by leaders failing to properly perform their duties as the commander of a vehicle movement as required in FM 55-30, *Army Motor Transport Units and Operations*. This includes failure to control the group's movement, failure to ensure that vehicles maintain a proper march speed, and failure to properly mark the unit's vehicles.

The convoy commander is responsible for the safe movement of the convoy. He must be capable of positively controlling the convoy movement through the use of communications equipment among the vehicles, by ensuring each vehicle has a properly trained, equipped and supervised crew, and by leading from the front. He must control the group's movement by enforcing speed limits, march intervals, crew uniform, and seatbelt usage. He must be required to stop the march if an unexpected hazard is encountered along the route.

Preparing vehicles and soldiers for movement is a leader responsibility. Indications are that inexperienced soldiers, personnel turbulence, and ever increasing training requirements have caused some units to become complacent in managing the risks

associated with vehicle movements. In accordance with the risk management process, as outlined in FM 100-14, leaders must identify the hazards associated with the mission, then develop, implement, assess and supervise control measures to mitigate those risks. These control measures include marking the vehicles IAW local SOPs, briefing crews on hazardous conditions expected along the route, pre-convoy checks of personnel and equipment, and developing pre-accident emergency contingency plans.

Unit SOPs should address leader responsibilities during movements of any number of vehicles and identify means to implement common control measures such as those defined in this message. Commanders must ensure that assigned leaders of any size military convoy are aware of their responsibilities and perform their duties to ensure the safe execution of the unit's mission. ♦

**Leadership saves lives!**

**—BG Gene M. LaCoste, Director of Army Safety**



# Accident Briefs

## Driver Rolls 5-Ton

A passenger was killed and the driver injured when their 5-ton truck went out of control and ran into a utility pole. The vehicle was part of a unit convoy that was en route to a training site when the driver over-corrected his steering while swerving to avoid hitting a civilian vehicle to his immediate front. The civilian vehicle had swerved to avoid a pedestrian who was near the road. The 5-ton driver was following too close to the civilian vehicle for the conditions on the road.

**Hazards.** The driver failed to maintain sufficient separation between his vehicle and the civilian vehicle. His speed was between 20-25 miles per hour with only 25 feet separation.

**Controls.** Convoy commanders must ensure all drivers are briefed on convoy intervals and speeds. Further, they must brief all members of the

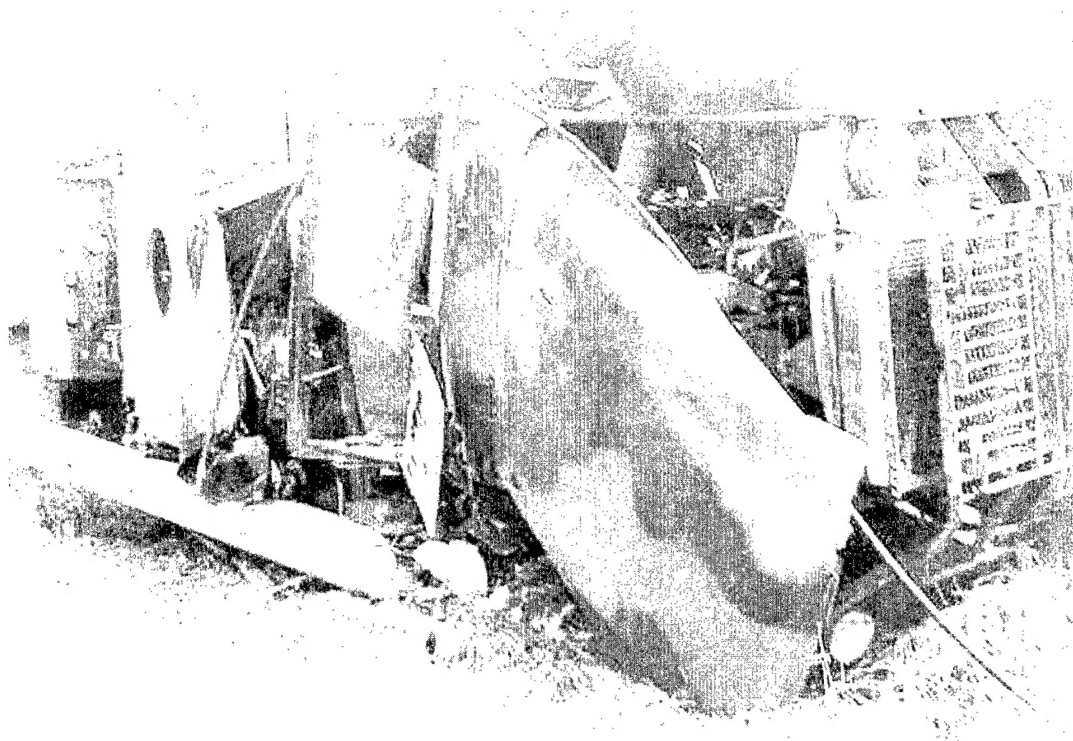
convoy on local traffic laws and customs. Finally, leaders must enforce standards for safe driving among all their subordinates.

## Inexperience Kills!

A passenger was killed and the driver injured when their high-mobility multipurpose-wheeled vehicle (HMMWV) went out of control and rolled over. The two soldiers were in a vehicle equipped with only lap belts, not the full safety belt harness.

**Hazards.** The driver had only recently been licensed on the vehicle. He had little actual driving experience, and his license had been issued without the required hands-on tests. The driver was also unfamiliar with the route, which covered curvy, bumpy, hazardous terrain. In addition, the speedometer on the vehicle was broken. As a result, the driver was driving too fast for the adverse road conditions and failed to slow for a curve.

**Controls.** Driver training programs and certification should conform to the standards. Leaders should ensure that inexperienced drivers are given opportunities to gain experience under controlled conditions in familiar territory. Further, maintenance must be performed not just as scheduled, but also as needed. ♦



The 5-ton driver was following too close behind another vehicle when he lost control and hit a utility pole. The passenger was killed.

# Motor Pool Hazards/Controls

*good maintenance safety program is critical in motor pool operations because of the high potential for accidents and injuries. This increase in accident risks demands an equal increase in safety measures. Therefore, in order to protect the Army's soldiers and equipment, we must integrate safety into all maintenance activities. The time is now to improve your unit maintenance safety program--talk to your soldiers and discuss maintenance activities with emphasis on proper procedures, required personal protective equipment, and avoidance of potential hazards.*

**Hazard.** Exposure to asbestos from brake linings and clutch facings.

**Controls.** Brushes or air pressure hoses should never be used to clean clutch facings, brake linings, or wheel drums. This could cause asbestos fibers to become airborne. This cleaning should be done using wet or vacuum methods because it can cause lung disease when inhaled. When exposed to asbestos, mechanics should wear a respirator NIOSH-approved for asbestos protection, such as Respirator, Lightweight, Particulate Removing, NSN 4240-00-084-9394. Contact your Preventive Medicine Activity for further guidance.

**Hazard.** Welding operations include vision and breathing hazards, especially welding on metals covered with paint that contains lead, chromates, or other toxins.

**Controls.** If you weld, cut, or braze in your motor pool, contact your Preventive Medicine Activity to have your operations evaluated for adequate ventilation and eye protection. If your facility has less than 10,000 cubic feet of space, if its ceiling is less than 16 feet high, or if welding is taking place in enclosed areas, you must provide local exhaust ventilation of 100 feet per minute (fpm) away from the breathing zone into the welding exhaust hood. Respirator, Air Filtering for Metal Fumes, NSN 4240-00-099-6939, must be provided in all extensive welding operations both indoors and out. In some cases, airline respirators must be provided.

**Hazard.** Exposure to exhaust fumes. Primary exposures in motor pools are carbon monoxide and other toxic gases. The amount of exposure depends on engine size, number of engines in operation, duration of engine operation, and size and construction characteristics of the motor pool.

**Controls.** Whenever possible, test and tune engines outdoors to avoid buildup of toxic gases in the motor pool. If engine work must be done indoors, use extension hoses, preferably powered local exhaust hoses, to vent exhaust fumes outside. Ensure tight connections and good natural and dilution ventilation.

**Hazard.** Exposure to noise from engines, air compressors, and generators.

**Controls.** If you have to raise your voice above normal conversation levels in the motor pool, contact your Preventive Medicine Activity for a noise hazard evaluation. Identify all machinery, vehicles, and shop areas where noise levels exceed 85 decibels and label them with warning stickers, NSN 9905-00-198-2728. Provide hearing protectors, earplugs, or earmuffs and ensure a medical fit. Enforce their use in your motor pool. ♦

**POCs:** MSG Timothy Sprucebank, Ground Systems and Accident Investigation Division, DSN 558-3774 (334-255-3774), or LTC Robert Noback, Command Surgeon, DSN 558-2763 (334-255-2763)

# SAFE DRIVING DISTANCES BETWEEN ARMIES AT 40 AND 50 MILES PER HOUR

(NOT TO SCALE: DISTANCES BETWEEN VEHICLES ARE MUCH GREATER THAN THEY APPEAR)

**40 MPH**



**50 MPH**



**40 MPH**



**50 MPH**



**40 MPH**





**50 MPH**



**40 MPH**



**50 MPH**



**40 MPH**



**50 MPH**



Written by accident investigators to provide major lessons learned from recent centralized accident investigations.

## Investigators' Forum

### Driver Dies in Night Operation Accident

The battalion was conducting tank gunnery. The operations order called for the tank companies to bivouac in the field. Support was from garrison with twice daily supply runs to the field site via a light medium tactical vehicle (LMTV). The assistant supply sergeant was the assigned driver that morning and his first-line supervisor rode in the right seat as the TC. The mission that day was to deliver breakfast chow and return three soldiers to the field site. Two of the soldiers climbed in the cargo compartment for the ride to the field site, while the other passenger, the senior occupant, rode in the middle seat.

Meanwhile, that same morning, an armor convoy of four vehicles started moving from their unit assembly area to the Table XII range. The convoy consisted of two M1A1 tanks, an M113 medic track, and a HMMWV moving in that order. The two tanks in the lead were using infrared (IR) drive lights with no visible markings on the tanks. The drivers were using their AN/VVS-2 driver night viewer.

The accident occurred as the vehicles traveled along a tank trail during normal operations. In the predawn darkness, the LMTV moved at approximately 22 miles per hour northwest along the range road using blackout drive lights. The speed limit during hours of reduced visibility is 15 miles per hour. The driver, the vehicle commander, and the senior occupant had night vision devices (NVDs) for

use, but they had left them in the cantonment area. The driver and the TC were awake and talking, while the senior occupant dozed in the middle seat.

The tank convoy, moving southeast along the same road, saw the LMTV approximately 200 meters away driving in their

### Mission: Night movement using infrared lights & blackout drive

#### Hazards

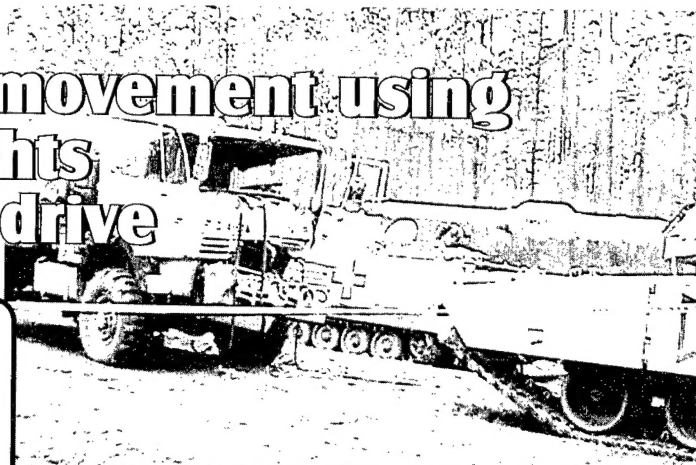
- ☐ Reduced visibility
- ☐ Speed

#### Results

- ☐ 1 fatality
- ☐ 2 minor injuries
- ☐ LMTV destroyed (\$135,000)

#### Controls

- ☐ Proper use of lead and trail vehicles to escort IR vehicles and proper marking of IR vehicles



direction. The TC of the lead tank instructed his driver to guide to the right side of the road to enable the LMTV to pass. The LMTV continued to approach with no change in speed or movement to the right side of the road to pass safely. The TC of the tank realized that the LMTV was going to hit the tank, so he ordered his driver to stop.

The LMTV struck the stationary tank. The forward-pointing gun tube of the lead tank penetrated the crew cab of the LMTV and struck the driver, fatally injuring him. Other personnel in the LMTV suffered minor injuries. No one in the tank was injured.

#### What went wrong?

The TC of the lead M1A1 did not operate his vehicle in accordance with command directives. He did not operate his vehicle with blackout drive lights and other illumination requirements.

In addition, the armor company commander failed to properly perform his duties as the commander of a vehicle movement as required in FM 55-30, *Army Motor Transport Units and Operations*. This includes failure to control the group's movement, failure to ensure that vehicles maintain a proper march speed, and failure to properly mark the unit's vehicles.

The LMTV senior occupant did not execute his responsibilities to ensure safe vehicle operations. He failed to ensure the driver or the truck commander had and used NVDs for the night movement. Consequently, the unaided LMTV driver could not see the unmarked, unlit lead M1A1 tank and ran into it head-on.

#### Lessons learned

The installation range regulation deals specifically with convoys using IR drive lights. It requires both the lead vehicle and the trail vehicle to use blackout drive lights and that vehicles using IR illumination be also illuminated with an additional light source such as a chemical light. Personnel in the front and trail vehicles are to warn approaching vehicles of IR vehicle operations.

The LMTV TC did not identify the hazards associated with conducting a vehicle movement during the hours of limited visibility. Although both the TC and his driver signed out NVDs, neither used them. Further, there was no division standard requiring the use of NVDs while operating a vehicle in the training area. The battalion operations order required all vehicle movements be conducted at night. The order included a risk assessment, but it did not mention any hazards associated with night vehicle movement or convoy procedures. As such, it listed no control measures to reduce those hazards.

Both the TC and the senior occupant allowed the driver to speed. The range road speed limit during hours of darkness was 15 miles per hour. The LMTV was going approximately 22 miles per hour...too fast for blackout drive lights. It is unknown if or when the driver saw the tank, but it is unlikely because there were no indications that the driver used the brakes or attempted an avoidance maneuver. If he had been going slower, the driver or the TC might have had time to see the tank and avoid the collision. As it was, the TC did not see the tank until the instant before impact, and the senior occupant never saw it because he was asleep.

At the installation where this accident occurred, the range regulation requires all personnel in the grade of E5 and above be range safety certified. Certification includes a class at range control and a written examination. Neither the program of instruction nor the examination mentions the IR convoy lighting requirements specifically. Consequently, the lighting requirements were not well known. In fact, witnesses said tanks often moved with IR lights only, unmarked by chemical lights and unescorted by lead and trail vehicles.

#### Summary

This accident could have been prevented by leader actions to manage risk in accordance with FM 100-14. They must identify hazards, develop and control risks in the planning

through execution stages of the operation. Leaders must properly supervise their soldiers to ensure that all operations are conducted to standard. By enforcing standards, leaders can improve the capabilities of their units and help protect soldiers. ♦

## Wrong Leader for the Job

The Support Platoon had been running continuous operations for several weeks in support of a deployed force. The mission for the day consisted of pulling an empty bulk liquid cargo trailer to an off-post location, filling it with water, and then returning it to the installation to refill several water points. The mission would be complete when they dropped the water trailer at the unit motor pool.

The driver awoke at 0430 and attended a 0515 accountability formation with other members of the platoon. The platoon was released to eat breakfast and then return at 0615 for a mandatory safety briefing. The safety briefing was conducted for all drivers who were on mission that day

and was given by the unit driver trainer.

After the safety briefing, the drivers were released to conduct pre-operations preventive maintenance checks and services (PMCS) on their assigned vehicles. While the driver filled out the PMCS checklist for the vehicle, the truck commander (TC) completed a risk assessment worksheet that was required for dispatch. Upon completing these two forms, the driver turned them in and was given a dispatch for the vehicle.

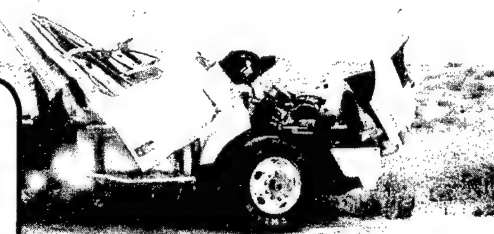
At approximately 0700, the driver and TC departed the motor pool, signed out of the unit, and proceeded to the off-post water point. After getting their water, the driver and TC returned to the installation to proceed with their mission.

After re-entering the installation, the vehicle turned onto a secondary road, a narrow, hard surface road running parallel to the installation boundary. At approximately 0845, the vehicle passed several soldiers working along the road approximately 200 meters from the accident site and entered a 90-degree right curve. These soldiers noticed that the vehicle was moving at a high rate of speed.

## Mission: Conduct Water Resupply Mission

### Hazards

- ☐ Going too fast for the road conditions
- ☐ Ineffective risk management
- ☐ Inadequate leader involvement in daily operations
- ☐ Poorly maintained road network



### What went wrong?

The vehicle was traveling between 55 and 65 mph as it entered the curve. The driver lost control of the vehicle midway through the curve. The tractor and trailer rolled 270 degrees to the left (driver's side), ultimately

### Controls

#### Results

- 1 fatality

- Reduce speed for conditions
- Effective control of vehicle by TC
- Proper risk management procedures
- Leader involvement in daily operations



coming to rest on the passenger's side. The driver was rendered unconscious. The TC sustained fatal injuries.

### **Lessons learned**

The TC for this mission failed to maintain control over the driver's actions and did not perform his duties as outlined in AR 600-55. Witness statements and analysis of the accident site indicate that the vehicle was traveling at a high rate of speed for the conditions.

The TC had a history of not enforcing driving standards over the past ten months. He had, in-fact, had his license suspended for a short period of time for two speeding violations and two minor traffic accidents while he was either the driver or the senior occupant of a vehicle. While he was on the promotion list to Sergeant (E-5), he had received little training that would qualify him for duties as the truck commander. In addition, his unit had not conducted any training for vehicle commander responsibilities/duties.

The unit's leaders did not enforce regulatory standards or their own unit SOP. The investigation revealed that leader involvement in unit motor pool operations was insufficient and that leader participation in the risk management system was substandard. Individual drivers were allowed to conduct a risk assessment of their upcoming missions with no NCO supervision or quality control. Further, there was no system in place to notify each driver of hazards associated with the terrain they would be operating on during their mission. Finally, there was little officer involvement in reducing the hazards identified by the drivers in developing control measures for these hazards.

While the driver was trained and licensed on the family of vehicles he was operating, he was not trained on the specific variation of the vehicle. The accident vehicle was put into service with the unit only three weeks prior to the accident. This new variant

of the vehicle had several subtle differences from other vehicles in the fleet.

The investigation revealed that the driver did not fully understand these differences or their impact on driving the vehicle. Further, the unit failed to properly train any of the drivers on the correct procedures involved in transporting bulk liquid cargo. The unit failed to ensure the driver had the Tanker Endorsements as required by AR 600-55, Appendix C.

### **Summary**

While the immediate cause of the vehicle rollover was excessive speed for the road conditions, the foundation for this accident was laid weeks, even months, before. Failure on the part of unit leadership to properly manage and oversee the unit's day-to-day operations in the motor pool created an environment where soldiers who were clearly not qualified for specific duties (i.e., vehicle senior occupant) were allowed to perform these duties with little or no supervision by the chain of command.

Further, some junior leaders within the unit were not involved in their subordinate's daily mission preparation or performance. Daily maintenance practices and risk assessment procedures had no actual leader oversight and few of the leaders exhibited an understanding of the process. Interviews revealed that some of the key leaders in the unit were seldom even in the motor pool, and had little insight into the road network that their subordinates were using.

Our soldiers expect and deserve effective leadership and mentoring. Positive leader involvement in the organization's mission could have prevented this accident from occurring. Leaders, ask yourselves this: "What am I doing today to prevent tomorrow's accident?" Your soldier's lives depend on you getting the answer right. ♦

**POC: USASC Ground Systems and  
Accident Investigation Division, DSN  
558-3562 (334-255-3562)**

# Survival of the Fittest

*This is the third in a series of articles on physical training and their accident causes. This issue is dedicated to heart attack. Future issues will cover sports injuries and exercising in cold environments.*

The soldier was 40ish, kept himself fit, enjoyed running, always did well on PT tests, and had just passed a physical a couple of months before. Going to the gym was a regular routine as well. One day in the gym, while doing upper bodywork, he started having some pain in his upper chest, just a dull ache, kind of like a muscle pull. Because he was almost finished with his workout, he decided to "work through it." He finished his workout, cleaned up, and walked out of the gym. He then experienced an extremely sharp pain in his chest and collapsed. The next thing he remembers is waking up in a hospital and being prepped for a coronary artery bypass operation. Come to find

out, this soldier had a heart attack!

Every year there are cases of active-duty soldiers who die from sudden cardiac arrest. While the exact circumstances and causes may not be known, indications are that physical exercise and strenuous exertion may be contributing factors because they increase the heart's need for oxygen. You don't always have to be old or in rotten shape to have a heart attack — there have been soldiers in their 20s who have had them.

It is important to know the warning signs of a heart attack. According to the American Heart Association, these are the most common signs:

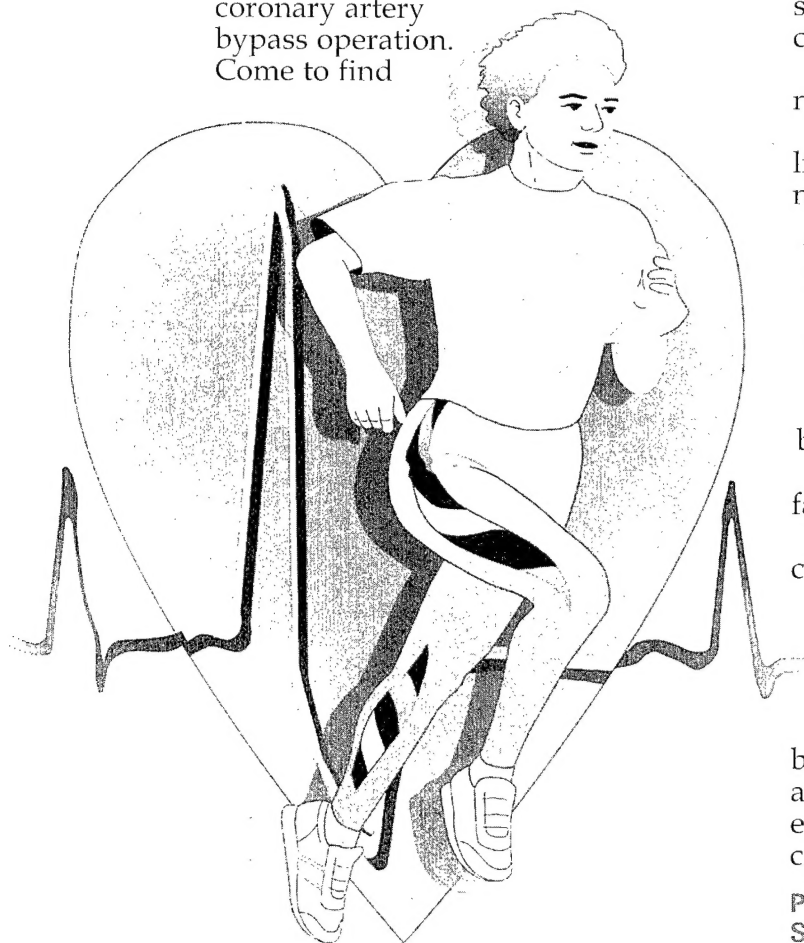
- Uncomfortable pressure, fullness, squeezing or pain in the center of the chest lasting more than a few minutes.
- Pain spreading to the shoulder, neck and arm.
- Chest discomfort with lightheadedness, fainting, sweating, nausea or shortness of breath.

## Other less common warning signs include:

- Unusual chest pain, stomach or abdominal pain.
- Nausea or dizziness.
- Shortness of breath or difficulty breathing.
- Unexplained anxiety, weakness or fatigue.
- Pounding or irregular heartbeats, cold sweats, or paleness.

A lot of these signs are easy to mistake for minor muscle injuries, dehydration, or over exertion — typical symptoms of soldiers soldiering. It is one thing to be Hooah; it is another to have a heart attack. If you have these symptoms, especially if they persist, get them checked out! ♦

POC: LTC Robert Noback, Command Surgeon, DSN 558-2763 (334-255-2763), nobackr@safetycenter.army.mil



# Safety Messages

The following is a list of selected safety of use messages (SOUMs) and ground precautionary messages (GPMs) issued by Army Tank-Automotive Command (TACOM) and Communications and Electronics Command (CECOM). Complete copies are available on the Army Electronic Product Support Bulletin Board via the internet web site at <http://eepc.ria.army.mil>.

■ R051000Z Apr 00, subject: SOUM-00-011, Technical, M109A5 (NSN 2350-01-281-1719, LIN K57667) and M109A6 (NSN 2350-01-305-0028, LIN: H57642) Self-Propelled Howitzers (SPH). There have been two carbon monoxide (CO) incidents during live firings of M109A6 SPH, resulting in injuries to crew. Exposure to air contaminated with CO may produce one or more of these symptoms: nausea, headache, dizziness, apparent drowsiness, loss of muscular control, and coma. Permanent brain damage and death can result from severe exposure. POC: Gary Rogers, DSN 793-0030 (309-782-0030), [rogersg@ria.army.mil](mailto:rogersg@ria.army.mil).

■ R061228Z Apr 00, subject: SOUM-00-012, Operational, M1000 Heavy Equipment Transporter Semitrailer (HETS), NSN 2330-01-303-8832, LIN S70859. This SOUM rescinds SOUM-99-01 and allows the user to transport the M1, IPM1, M1A1, and M1A2 Abrams tanks with the MCB. POC: Mike Decker, DSN 786-5548 (810-574-5548), [deckerm@tacom.army.mil](mailto:deckerm@tacom.army.mil).

■ R061157Z Apr 00, subject: SOUM-00-013, Technical, Inspection of the Heavy Equipment Recovery, Combat Utility Lift and Evacuation System (HERCULES), NSN 2350-01-390-4683, Model M88A2, LIN: R50885. The M88A2 (HERCULES) has experienced three engine compartment fires since Dec 99. It was determined that the spilling or leaking of engine oil was the cause of the fires. POC: Keith Powell, DSN 786-5310 (810-574-5310), [powellk@tacom.army.mil](mailto:powellk@tacom.army.mil)

■ R181759Z May 00, subject: SOUM-00-014, Technical, Geared Hub Lock Washer, NSN 5310-01-213-4185, for all M998 series High Mobility Multipurpose Wheeled Vehicles (HMMWVs). A report from the field indicates that the spindle locknut in the geared hub assembly may work loose, causing the

tire/wheel assembly to separate from the vehicle. POC: Jody McInerney, DSN 786-6277 (810-574-6277), [mcinernj@tacom.army.mil](mailto:mcinernj@tacom.army.mil).

■ R311651ZMAY00, subject: SOUM-00-015, Technical, for all series HMMWVs equipped with distribution box NSN 6110-01-446-7126 and supplied with kit NSN 6110-01-446-7125. Vehicles equipped with subject distribution box and kit have a potential to crank over on its own. This can occur either during operation or after the vehicle has been stopped and the run switch turned off. POC: Tom Orsini, DSN 786-6277 (810-574-6277), [orsinit@tacom.army.mil](mailto:orsinit@tacom.army.mil).

■ R051415Z Jun 00, subject: SOUM-00-016, Technical, Combination Pressure Washer and Steam Cleaner (NSN 4940-00-186-0027, LIN E32466; NSN 4940-00-473-6218, LIN E32535; NSN 4940-01-025-9856, LIN C32887; NSN 4940-01-017-7835, LIN E32535), and all locally procured combination pressure washer and steam cleaners. These machines lack ground fault circuit interrupter (GFCI) protection features. POC: Irvin Eyre, DSN 793-8149, [eyrei@ria.army.mil](mailto:eyrei@ria.army.mil).

■ R121509Z Jun 00, subject: SOUM-00-017, Update to SOUM 00-014, Technical, Geared Hub Lock Washer, NSN 5310-01-213-4185, for all M998 series HMMWVs. POC: Jody McInerney, DSN 786-6277 (810-574-6277), [mcinernj@tacom.army.mil](mailto:mcinernj@tacom.army.mil).

■ R161720Z May 00, subject: GPM-00-007, Cab Lift Cylinder, NSN 3040-01-372-4179, and Cylinder Mounting Bracket, NSN 2590-01-374-3851, on FMTV. FMTV PM failures occur when the pin breaks off of the mounting bracket. Corrosion builds up between the cab tilt cylinder collar and the lower mounting pin, causing the pin to fail during cab tilt operations. POC: John Kandrot, DSN 786-8083 (810-574-8083), [kandrotj@tacom.army.mil](mailto:kandrotj@tacom.army.mil).

# Saved by the Belt

he day was 21 June 1998, Father's Day. SGT Barrera had just finished the Sergeant's Course and was traveling with his family from Arizona to Camp Pendleton, CA. He was driving the family van with his wife who was 7 months pregnant, and their 2-year-old daughter. Everything was going well, but something would happen in the next half hour that would leave an unforgettable mark on SGT Barrera and how he viewed life.

SGT Barrera rarely wore his seatbelt and he felt no particular urge to wear it this time either. His wife and daughter were both secured in their car seats.

It was hot outside, but the air-conditioning inside the van made the long trip bearable. The family had been on the road for 10 hours when they reached the Arizona/California border. At the border, the elderly checkpoint worker cautioned SGT Barrera to fasten his seatbelt.

Without much thought, SGT Barrera fastened his belt. His wife and daughter were asleep, and they would soon be in Pendleton in 2½ hours. Less than 30 minutes later, SGT Barrera also fell asleep...at the wheel.

He was suddenly awakened by the sound of the highway rumble strip and the van rocking as it began to leave the road. Instinctively, he turned the wheel in the other direction and the van lurched to the left.

The speed and quick direction change caused the van to roll over two times, landing on its roof 20 yards off the highway. All of the cargo inside the van, with the exception of one suitcase, was violently thrown clear of the van.

Luggage, a huge ice chest, and other belongings were scattered all over the crash scene. All of the windows were shattered and the van was totaled. SGT Barrera's wife was knocked unconscious and his daughter was unhurt, but was frightened and crying. Fortunately, SGT Barrera had fastened his seatbelt and remained behind the wheel during the violent rollover and only received a minor cut to his face.

Three cars arrived on the scene within minutes. Shortly, a California Highway Patrol unit and an air ambulance arrived. Due to the fact that Mrs. Barrera was 7 months pregnant, they airlifted her first in order to monitor the condition of the fetus. She was released after overnight observation, while SGT Barrera and his 2 year-old daughter required no special medical attention. One month later, Mrs. Barrera gave birth to a healthy 9-pound baby boy.

The trauma of this crash left SGT Barrera with a deep appreciation for the power of seatbelts and for a family that he could have lost. He certainly isn't shy about wearing seatbelts now and insists all passengers do the same. He is also a firm believer in getting proper rest before taking a trip.

## SAFETY BELTS SAVE LIVES.

